Complete Summary

GUIDELINE TITLE

Overview of implementation of outcome assessment case management in the clinical practice.

BIBLIOGRAPHIC SOURCE(S)

Washington State Chiropractic Association. Overview of implementation of outcome assessment case management in the clinical practice. SeaTac (WA): Washington State Chiropractic Association; 2001. 54 p. [180 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Vertebral subluxation complex

GUIDELINE CATEGORY

Assessment of Therapeutic Effectiveness
Management

CLINICAL SPECIALTY

Chiropractic

INTENDED USERS

Chiropractors

GUIDELINE OBJECTIVE(S)

- To present a case management approach to chiropractic care that is evidence and outcomes based, regardless of the treatment approach utilized
- To promote the clinical use of outcome assessment data to help analyze the effectiveness of case management plans

TARGET POPULATION

Patients with vertebral subluxation complex

INTERVENTIONS AND PRACTICES CONSIDERED

Patient Reported Outcome Assessment Tools

1. General health assessments (e.g., Standard Form [SF]-36; Sickness Impact Profile; Dartmouth COOP Charts)
2. Pain scales (e.g., Visual Analogue Scales, 1 to 10 Anchored Numerical Scale; 1 to 100 anchored Numerical; McGill/Melzack pain questionnaire; Pain Disability Index; Pain Diagram; Dallas Pain Questionnaire; Centralization of Pain)
3. Disability index questionnaires (e.g., Neck Disability Index; Oswestry Questionnaire; Roland-Morris; Waddell Disability Index; Million Disability Questionnaire)
4. Patient satisfaction measures (e.g., Patient Satisfaction Questionnaire; Low Back Satisfaction Questionnaire)
5. Psychometric measures (e.g., Minnesota Multiphasic Personality Inventory; Millon Behavioral Health Inventory; Beck´s Depression Inventory

Examiner Assessed Outcome Assessments

1. Physiologic measures (e.g., range of motion-inclinometer methods; muscle strength and endurance testing-instrumentation methods; surface electromyography [SEMG]; plumb line postural analysis/bilateral weight scales/spinal balance; thermography; algometry; radiographic imaging)

MAJOR OUTCOMES CONSIDERED

Clinical applicability, validity, reliability, and sensitivity to change in the patient´s condition of various outcome measures

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

The guideline developer reviewed published chiropractic guidelines and textbooks for initial definitions and concepts. Subsequently, the guideline developer searched Medline (U.S. National Library of Medicine) for relevant literature.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Not stated

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Not stated

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Outcome Assessment

The instruments/methods used to assess the components of the vertebral subluxation complex and its impact upon the individual patient must be appropriate/applicable for that patient and his condition.

Gathering outcome assessment data in evaluation of the change of a patient's condition should minimally include combining patient-driven information, such as changes in activity intolerance with doctor-driven data such as range of motion, alter joint function and muscle strength testing. Examples of professional integration and interpretation of patient-driven and doctor-driven outcome assessments with peculiar individual patient clinical findings can be found in the chapter titled "Case Histories" in the original guideline document.

Chiropractors must be able to determine when care is clinically necessary, when care is leading to progress, and when the patient has failed to continue to respond to a particular treatment plan. Objective outcome assessment data may help assess the changes in a patient's condition beyond the realm of professional opinion, in the determination of maximum improvement or pre-injury status.

Outcome Assessment Categories include:

1. General Health Assessments (Patient reported outcome assessments)
2. Pain Scales (Patient reported outcome assessments)

   The attending clinician must remember that the patient's report of pain may be influenced by outside non-organic factors. Monitoring the patient's pain may need to be correlated with other clinical and outcome assessment findings. It has been reported that low back and neck pain represent approximately two/thirds of all chiropractic patients. The report of pain or the increase of pain is an integral part of many orthopedic and neurologic tests and procedures. A patient's self-reported (nominative) response, that pain is present or has been increased, is an integral component of these orthopedic and neurologic procedures.

3. Disability Index Questionnaires (Patient reported outcome assessments)

   The choice of the appropriate disability index questionnaire for specific individuals should depend upon the applicability, validity, reliability, and sensitivity to a particular type of patient as demonstrated in the scientific literature.

4. Patient Satisfaction Measures (Patient reported outcome assessments)

   Patient satisfaction measure surveys should not be considered a substitute for other outcome tools or used exclusively in clinical practice.

5. Physiologic Measures (Examiner Assess Outcome Assessment Measures)

Physiological measures gathered over time may provide objective data that may be used for outcome assessment evaluation situations in the chiropractic practice.

6. Psychometric Measures (Patient Reported Outcome Assessment)

   A comprehensive psychological assessment of each chronic back pain patient may be essential to identify yellow flags associated with a treatment response. These yellow flags may indicate that a longer treatment time than natural progression, may be require for the patient to reach maximum improvement. This additional knowledge may be necessary for the chiropractor to transition the patient effectively into an integrated active treatment regiment.

A detailed discussion of the above listed outcome assessment categories can be found in the original guideline document.

Clinical Implementation of Outcome Assessment

The clinical implementation of outcome assessment measures, begins with the selection by the physician of the applicable outcome assessments. The data is obtained on the patient during the initial baseline gathering period, followed by regular re-examinations to gather additional data. This data is then used and interpreted to determine the effectiveness of care.

Choosing which Outcome Assessment Measures to Record

By using outcome assessment measures the chiropractor will provide the necessary data to meet the questions of all interested parties. Interested parties may include; the patient, the doctor, Health Maintenance Organization (HMO) and Preferred Provider Organization (PPO) administrators, workman's compensation claims reviewers, attorneys and insurers. To answer the questions concerning patient progress, it is advised that analysis of patient progress be made by both examiner assessed (substantive) and patient self reported (nominative) outcome assessment data, to ensure a fuller picture of the patient's response to care. Using only substantive or nominative outcome assessment data may tend to insert either doctor or patient directed bias into clinical decisions.

Baseline Data Gathering of Outcome Assessment Measures

The procedure for exhibiting the effectiveness of chiropractic spinal adjustments via outcome assessment methods begins with baseline outcome assessment testing. This baseline testing should begin with the initial examination period, however, it may be spread over several consecutive office visits.

For outcomes gathering approaches to be optimally incorporated into chiropractic practice, a baseline in measurement should be obtained prior to beginning any care. The gathering of baseline outcome assessment data is usually done on a first visit but some clinical circumstances may require a longer baseline period, which may include several visits. The baseline outcome assessment data, should be compared to a normative database if available or a normative factor. The

range of motion measurements may be compared to a normative database, such as the American Medical Association (AMA) "Guides to the Evaluation of Permanent Impairment." Comparing the patient´s right side measures to left side measures may be considered to be a normative factor. The use of a normative factor may be applied if the patient is very young or flexible and their individual normal range of motion is greater than normal. An example of this would be restricted cervical range of motion in a child after a trauma in which the cervical rotational range of motion to the left may be 90 degrees and the range of motion to the right is 80 degrees. In this scenario, even though the right rotational range of motion is an American Medical Association normal, it is still restricted when compared to the left rotational normative factor. This ability to compare to a normative database or a normative factor assists the practitioner in making a judgment on the severity of a condition that accounts for individual factors peculiar to the patient.

Treatment Goals

Appropriate treatment goals are a key to recovery from disability and prevention of chronic pain. Treatment goals may include:

- Improving physiological functional measures
- Reducing disability and pain scores
- Maximum improvement or pre-injury status
- Transition from passive to active care
- Increase level of active exercises
- Returning to work

Frequency of Re-examination

The frequency of care and re-examination, while at the discretion of the attending clinician, needs to meet certain standards. During the initial inflammatory episode the patient may be re-examined as frequently as every two weeks. Special cases (such as when neurological losses exist) may require even more frequent re-examination in order to gather the outcome data necessary to make prompt clinical management decisions. At the maximum, length of time for data gathering may be as infrequent as every 30 days, depending on the responsiveness of the outcome measure utilized.

Patient Failure to Respond

If a patient exhibits no change in the outcome assessment data for a maximum period of three consecutive re-examinations or 60 days, the patient should be considered for a clinical change in treatment. Considerations for changes in treatment may include the following:

- Modifying treatment approach
- Co-treat with an allied health provider
- Referral for a second opinion
- Determine that the patient has reached maximum improvement

The clinical decision as to which, change in treatment, path should be followed is dependent on the individual practitioner's profession integration of outcome assessment data.

Professional Integration of Outcome Assessment Data

Clinically Necessary Care

The clinical need for chiropractic care should not be determined in a "cookbook" manner, by determining that all patients will respond to care at a predetermined rate. The Rand study (Shekel, P, Adams A, Chassin M, Hurwitz E, Phillips R, Brook R. The appropriateness of spinal manipulation for low back pain, 1991) states "Treatment Duration: No Scientific evidence in the literature supports any of the treatment durations for different indications that have been proposed." This statement strongly states that neither scientific evidence nor clinical literature provides any compelling evidence that substantiates the correlation of any specific time period for the correction of the vertebral subluxation complex and its effects. These statements are derived from the well-accepted premise that all patients respond to trauma and treatment at individual rates, and that statements concerning the clinical necessity of care based solely on time are not clinically credible. Clinical necessary care may be determined by the use of outcome assessment measures that are sensitive to the change in a patient´s condition. Clinically necessary care is care that is needed to continue a positive response in the patient is clinically necessary care.

Length of Care

The interpretation of the clinical signs, symptoms and outcome assessment data are critical in the determination of the length of care. Whether the final points of care be to maximum improvement, pre-injury status, or no residuals the length of care should continue while the patient is responsive to care by exhibiting positive improvements.

Duration of care may be influenced by the list of complicating factors. These well-known complicating factors associated with acute episodes of spinal pain may lengthen the duration of care. However, when implementing outcomes management, these factors do not have to be considered separately, since the outcomes data will indicate when the patient is no longer improving or responding to care. It is the consensus of the chiropractic guidelines (Mercy, Council on Chiropractic [CCP] and Canadian) that the individual differences in each patient and the unique circumstances of each clinical encounter preclude the formulation of cookbook recommendations for frequency and duration of care.

Patients may first present indications of being unresponsive when two consecutive re-examinations show essentially no change in any of the outcome assessment data. When this occurs, specific evaluation of the treatment program should be made to determine if a more effective treatment program could be developed for the patient. This change in treatment should attempt to address causes for the lack of improvement in the outcome data.

If the patient continues to demonstrate no change in the outcome assessment data after three consecutive re-evaluations, then a referral may be appropriate or

the patient may have reached maximum improvement for their condition. The ability to identify end point improvement or plateaus in care will enhance the clinician´s ability to make prompt, timely clinical decisions that may support a change in case management and improve clinical outcome.

Integration of Outcome Assessment Data

The gathering of outcome assessment data and basing clinical decisions on the data is the basis of the evidenced based outcome assessment practice. The analysis of the data is formulated into two categories:

- Patient reported nominative (subjective) outcome assessment analysis
- Physician measured substantive (objective) outcome assessment analysis

The clinician must always weigh the clinical significance of each type of outcome assessment data against the patient that presents before him.

The careful consideration of the doctor measured outcome assessment data, may be significant in the determination of clinically effective care. These objective assessment measures are performed, in order to provide objective data on the patient that has minimal influence from patient bias. This objective data may be critical in the determination of key clinical decisions and calculations:

- To determine the need for care
- Demonstrate progress during care
- Assisting in making case management decisions during care
- Calculate physical impairment and functional capacities at case discharge

Integration of Clinical Yellow Flags

Clinical yellow flags may be physiological as in degenerative joint disease, occupational as in poor ergonomic working conditions, and physiological as in chronic pain behavior. Failure to exhibit a positive outcome assessment on all selected measures does not by itself indicate failure in treatment, particularly when doctor measured outcome assessment measures continue to exhibit a positive outcome assessment measure, while paper driven measures are equivocal.

Complicating factors associated with extended care of spinal conditions may include:

- Trauma
- History of greater than four episodes
- Pain present more than 8 days prior to consultation
- Severe pain
- Sciatica or other nerve root tension or compression signs
- Skeletal anomaly preceding the onset of pain
- Decreased cardiovascular fitness
- Heavy smoking
- Decreased static extension endurance
- Biomechanical stress such as exposure to vehicular vibration

- Exacerbations
- Multilevel degenerative joint disease
- Spondylolisthesis
- Job dissatisfaction
- Job disability in the previous 12 months
- Psychological distress/abnormal illness behavior:
    - Positive Waddell´s signs of non-organic pain
    - Pain consistently rated as a 9 of 10 on a 0 to 10 point scale
    - Pain avoidance behavior
    - Symptom proliferation
    - Total body pain
    - Episodes of collapse or inability to move

Psychosocial yellow flags frequently indicate a type of chronic pain behavior. The term chronic pain behavior is not synonymous with malingering. The Agency for Health Care Policy and Research stated in its report titled "Acute Low Back Problems in Adults" (Clinical practice guideline quick reference guide; no. 14. 1994), "Interpreting inconsistencies or pain behaviors as malingering does not benefit the patient or the clinician. It is more useful to view such behavior and inconsistencies as the patient's attempt to enlist the practitioner as an advocate, a plea for help." Frymoyer in his research (Frymoyer JW. Epidemiology. New perspectives in low back pain. Chicago [IL]: American Academy of Orthopaedic Surgeons, 1989) noted the relevance of both the biologic and psychosocial models in the development and/or maintenance of disability. Waddell states, "Chronic pain is sometimes described as persisting beyond normal healing time: if there is no longer any evidence of tissue damage it is sometimes implied that there is no remaining nociception. This would incorrectly imply that there is no longer any sensory component to the pain. This is neither theoretically nor clinically acceptable." (Waddell, et al. A fear avoidance beliefs questionnaire and the role of fear avoidance beliefs in chronic LBP and disability. Pain 1993;52:157-68.)

The presence of chronic pain behavior does not prevent a patient from exhibiting improvement. Some studies in the literature demonstrate work that strongly exhibits improvement in chronic back pain patients. The author of these studies noted that when patients are regularly measured with established outcome assessment measures and the results are reported back to the patients, that functional changes were also accompanied by positive changes in psychological measures.

The patient self-reported outcome assessment measures listed are considered established. They are in widespread use and have been subjected to formal processes and determined to be appropriate for the chiropractic clinical settings. However, special clinical situations may require the clinician to critically evaluate the data gathered from these patient self-reported measures as exhibited in the chapter titled "Case Histories" in the original guideline document.

Examiner measured outcome assessment are used for the direct qualitative and/or quantitative assessment of the biomechanical/physiological components of the patient's condition. Examiner measured outcome assessment measure is also referred to as objective outcome assessment data or substantive outcome assessment data. In the presence of patient yellow flags, the examiner measured outcome assessment data may have significant weight when the professional

integration of the outcome assessment data is formulated during the clinical decision making process, concerning the clinical effectiveness of care. The ability to directly measure some of the components of a patient's condition is of great value in establishing the clinical usefulness of care and progress during care.

Reporting Outcome Assessment Data

The attending clinician should always report on the data concerning the progress of the patient. Without reports, on the doctor´s interpretation of the outcome assessment data of the patient's condition, the payers, patients, referral clinicians and peer review clinicians will have reason to question the effectiveness of care. The attending clinician has the best prospective to analyze and explain any inconsistencies between the patient reported nominative data and the physician measured substantive data. Most inconsistencies between nominative data and substantive data are easily explained within the context of the individual cases. Clinical inconsistencies in outcome assessment data are discussed in the chapter titled "Case Histories" in the original guideline document.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Outcome assessment case management may be useful in clinical practice to:

- Consistently evaluate the effect of care over time
- Help identify the end point of care or maximum improvement
- Help identify inconsistent findings associated with non-organic pain or chronic pain behaviors
- Help demonstrate the need to modify clinical management
- Document improvement to patient, doctor and third parties
- Assist in determining the type, frequency and duration of care

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- This is not a guideline document to be used to set standards for care. This document is to be used by clinicians as an overview of outcome assessment strategies to help track patient progress during care.
- This guideline is not intended, nor should it be used as a set of legally or ethically binding standards, but as a method of guiding practitioners in the proper care of patients.
- A discussion of all possible available outcome assessment measures is beyond the ability of this paper because new outcome assessment measures are being developed continuously.
- These recommendations address the vertebral subluxation complex and its effects in the chiropractic practice and do not purport to include all procedures that are permitted by law in the practice of chiropractic. Lack of inclusion of a procedure in these assessment strategies does not necessarily mean that the procedure is inappropriate for use in the practice of chiropractic.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Washington State Chiropractic Association. Overview of implementation of outcome assessment case management in the clinical practice. SeaTac (WA): Washington State Chiropractic Association; 2001. 54 p. [180 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2001

GUIDELINE DEVELOPER(S)

Washington State Chiropractic Association - Professional Association

SOURCE(S) OF FUNDING

Washington State Chiropractic Association

GUIDELINE COMMITTEE

Evidence Based Practice Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Committee Members: Mark van Hemert, DC, DACS, Chairman; Kenneth Shotwell, DC; Robert Mootz, DC, DABCO; Stephen Saunders, DC; John Huber, DC; Steven Ryan, DC

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

An update is not in progress at this time.

GUIDELINE AVAILABILITY

Electronic copies: Not available at this time.

Print copies: Available from Washington State Chiropractic Association, 21400 International Blvd, Suite 207, SeaTac, WA 98198. To order the guideline, please telephone (206) 878-6055 or email: wsca@chirohealth.org.

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This summary was completed by ECRI on September 24, 2001. The information was verified by the guideline developer as of December 13, 2001.

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